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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,318	12/19/2000	Yuji Murayama	SON-1976	2545

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EXAMINER

LABAZE, EDWYN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,318

Applicant(s)

MURAYAMA ET AL.

Examiner

EDWYN LABAZE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Receipt is acknowledged on amendment filed on 9/24/2002.

Claim Objections

2. Claims 13-17, 19-21, 23-25, 27-29, 31-33, and 35-37 are objected to because of the following informalities:

Re claims 13 (page 2; lines 5): Substitute "the information" with "an information".

Re claims 14-17 (page 3; lines 1, 6, 12, and 15): Substitute "A" with "The", and (page 3, line 2): Substitute "the phase" with "a phase".

Re claims 19 (page 4; line 18): Substitute "An" with "The".

Re claims 20-21 (page 5; lines 1, and 7): Substitute "An" with "The".

Re claims 23-25 (page 6; lines 6, 11, and 17): Substitute "A" with "The".

Re claims 27 (page 7; lines 18): Substitute "A" with "The".

Re claims 28-29 (page 8; lines 1, and 5): Substitute "A" with "The".

Re claims 31-33 (page 9; lines 6, 10, and 13): Substitute "An" with "The".

Re claims 35-36 (page 10; lines 16, and 20): Substitute "A" with "The".

Re claims 37 (page 11, lines 3): Substitute "A" with "The".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carrender et al. (U.S. 5,850,187) in view of Katayama et al. (U.S. 5,418,353) and of Kawana (U.S. 5,010,237).

Re claims 13, 18, and 22: Carrender et al. discloses an integrated electronic tag reader and wireless communication link, which includes a transceiver to receive the signal being the information transmitted to the portable electronic apparatus onto the signal processor (col.3, lines 15-43), a plurality of pulses during each cycle of the clock signal (col.4, lines 10-43), a plurality of logic level being generated during each cycle of the clock signal (col.9, lines 35-67; and col.10, lines 1-5), a decoder 234 (col.4, line 24; and col.4, lines 58+) to decode the plurality of logic levels "0" and "1" (col.4, lines 36-43) to generate the received data.

Carrender et al. fails to disclose a clock generation circuit and a sampling signal.

Katayama et al. teaches a non-contact, electro-magnetically coupled transmission and receiving system, which includes a clock generation circuit (col.16, lines 53-60).

In view of Katayama et al.'s teaching, it would be obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate a clock generation circuit in the CPU to generate a clock signal. Furthermore, the clock generation circuit located in the microprocessor supplies a reference frequency, a phase lock loop and outputs the generated clocks to the demodulator circuit and the control logic circuit. Moreover, such modification would have an obvious extension of the teaching of Carrender et al., therefore an obvious expedient.

Carrender et al. as modified by Katayama et al. fails to disclose a sampling signal.

Kawana teaches an IC card system for preventing unauthorized data alteration, which includes a sampling signal (col.5, lines 11+).

In view of Kawana's teaching, it would be obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the system of Carrender et al. to generate a sampling signal for sampling the received signal. Furthermore, such modification would detect the signals transmitted from the antenna, sample or compare the frequency-transmitted signal with the clock-generated frequency and outputting the results for decoding. Therefore, such modification would have an obvious extension as taught by Carrender et al.

Re claims 14, 19, and 23: Carrender et al. teaches an apparatus, wherein the phase of the clock signal is compared to the phase of the received signal (col.6, lines 26+), the clock signal when out of phase with the received signal is brought into phase with the received signal (col.8, lines 66-67; and col.9, lines 1-15).

Re claims 15, 20, and 24: Carrender et al. discloses an apparatus, wherein the decoder includes a storage medium, the plurality of logic levels being used to address a storage medium location within the storage medium (col.4, lines 34-67), said received data being stored at said storage medium location (col.5, lines 9-25).

Re claims 16, 21, and 25: Carrender et al. teaches an apparatus, wherein the received signal is wireless transmitted to the portable electronic apparatus (col.2, lines 21-24).

Re claim 17: Carrender et al. teaches an apparatus, wherein the received signal is a modulated signal (col.4, lines 24+).

5. Claims 26-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carrender et al. (U.S. 5,850,187) in view of Kurihara et al. (U.S. 5,574,754).

Re claims 26, 30, and 34: The teachings of Carrender et al. have been discussed above.

Carrender et al. fails to disclose a correlation value detection circuit and determination circuit.

Kurihara et al. teaches a sliding correlator, which includes a correlation value detection circuit 28 (col.7, lines 39-47) comparing the phase of the clock signal to the phase of the received signal to generate a correlation value signal, said correlation value signal trending in a first direction when said clock signal is in phase with the received signal and trending in a direction opposite to the first direction when the clock signal is out of phase with the received signal (col.11, lines 21-67; and col.12, lines 1-67+), a determination circuit using the correlation value signal to generate said received signal (col.8, lines 53-67; and col.9, lines 1-50).

In view of Kurihara et al.'s teaching, it would be obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate a correlation value detection circuit for calculating the correlation value for the received signal. The correlation value is calculated from the reception signal, between the clock signal generated from the clock generation circuit and the detected signal from the sampling signal circuit, over one period /cycle and accumulated in the memory. Furthermore, the correlation value reduces or filters the noise level and thus improves the signal-to-noise ratio (SNR). Moreover, such modification would enhance the teaching of Carrender et al., and therefore an obvious expedient.

Re claims 27, 31, and 35: Carrender et al. teaches an apparatus, wherein a value of the correlation value signal establishes the logic level of the received data, said logic level being one of a "0" and a "1" logic level (col.6, lines 52+).

Re claims 28, 32, and 36: Carrender et al. modified by Kurihara et al. an apparatus, wherein said first direction is an increasing direction and said direction opposite to the first direction is a decreasing direction (col.7, lines 2+).

Re claims 29, 33, and 37: Carrender et al. modified by Kurihara et al. an apparatus, wherein said correlation value signal is bounded by a maximum amount and a minimum amount, said minimum amount being less than the maximum amount (col.8, lines 44-67; and clo.9, lines 1-50).

Response to Arguments

6. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shibata et al. (U.S. 6,343,744) discloses a non-contact type IC card and system thereof.

Takahira (U.S. 5,424,527) teaches a signal received coil and non-contact IC card using the same.

Nishi (U.S. 5,386,539) discloses an IC memory comprises an EEPROM with data and address buffering for controlling the writing/reading of data to EEPROM.

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

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Edwyn Labaze

Patent Examiner

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November 4, 2002

A handwritten signature in black ink, appearing to read 'Thien M. Le', written in a cursive style.

THIEN M. LE
PRIMARY EXAMINER